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Commitment, Motivational Sources, Performance,
Job Satisfaction, and Organizational Citizenship
Behaviors among Air Force ROTC Cadets

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Abstract

The present study examined relationships between organizational commitment and performance, job satisfaction, organizational citizenship behaviors, and four general motivational categories in an Air Force ROTC setting. A review of the organizational commitment literature was conducted and several hypotheses were developed. Regression analyses were performed to test the hypotheses. Results indicate overall positive support for most of the hypotheses. Affective commitment was significantly, positively related to several of the performance measures, job satisfaction, organizational citizenship behaviors, and the "idealistic" motivational category. Implications for the Air Force (and other organizations) are discussed.

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Introduction

The nature of "organizational commitment" and its antecedents and consequences has been the subject of much research (e.g., Cohen and Lowenberg 1990; Mathieu and Zajac 1990). It has implications for the Air Force (and other organizations) including, but not limited to, possible relationships with performance, "organizational citizenship behaviors", job satisfaction of employees, and the "motivational sources" which were measured in this study. Determining the nature of these relationships is the focus of the following study and review of the literature.

Literature Review

Types of Organizational Commitment

There have been several types of organizational commitment investigated in the literature. However, over the years the research and discussion has concentrated on four primary types. The two major types are affective commitment and continuance

commitment. Normative commitment and organizational identification will be discussed briefly later in this section.

Continuance Commitment. The surge of research on commitment over the last two decades or so was stimulated by an article published by Howard Becker in 1960. This article proposed the existence of continuance commitment (the "side-bets" orientation), which has also been referred to as the economic model of organizational commitment, exchange theories of commitment, calculative commitment, and cost-induced commitment (Becker, 1960). These approaches point to the importance of an employee's perception of the benefits and costs of either maintaining or terminating membership in the organization. If this perception favors maintaining membership, then continuance commitment is said to exist to some sufficient degree.

According to Becker (1960), costs are evaluated by the individual via "side-bets" which can keep the employee tied to the organization. These are the costs of leaving an organization, often in the form of lost benefits. An example might be points accumulated toward a retirement program by tenure, or health benefits associated with seniority in rank. In both

cases, if the organization was abandoned and a new one joined, the benefits would be lost and the member would have to start all over again. This reluctance to leave the organization on the basis of losing these benefits would then contribute positively to the member's commitment to the organization (Becker, 1960).

Affective Commitment. Affective commitment (also known as goal-congruence commitment, psychological commitment, attitudinal commitment, cohesion commitment, and emotional commitment) originated in the work of Porter and several of his colleagues (Porter, Crampon, & Smith, 1976). As the name implies, this type of commitment reflects the employee's emotional attachment to the organization. The member personally identifies with the organization on the basis of similar goals, values, or beliefs. Porter, in several studies with his associates, defined affective commitment as "acceptance of the organization's goals and values, willingness to help the organization achieve its goals, and a desire to remain within the organization" (e.g., Porter, Steers, Mowday, & Boulian, 1974).

Normative Commitment. The construct of normative commitment was made known by Wiener (1982). Also known

as moral commitment, this form of commitment derives from the member's personal moral standards. Wiener was trying to make the distinction between certain consequences of commitment. Specifically, he was distinguishing between when a member acts in accordance with organizational goals because he or she wants to (which would be affective commitment as it is usually defined), and when the member does this because he or she feels that it is the "right" thing to do based on some concept of loyalty or duty to the organization. This distinction is difficult to make and is certainly difficult to measure. Wiener said that behaviors related to this kind of commitment will reflect personal sacrifice, persistence irregardless of rewards or punishments associated with the behaviors, and a personal preoccupation with the organization, such as devoting a great deal of personal time to organization-related actions and thoughts (Wiener, 1982).

Organizational Identification. A fourth form of commitment, called organizational identification, has also been presented by some authors (e.g., Hall & Schneider, 1972). Similar to affective commitment, it has been defined as "a partisan, affective attachment to the goals and values of an organization, to one's

role in relation to goals and values, and to the organization for its own sake, apart from its purely instrumental worth" (Buchanan, 1974).

Since organizational identification is often referred to as a process rather than a state, it is not surprising that it is sometimes regarded as an antecedent to commitment rather than as commitment in and of itself. For example, Wiener used the organizational identification approach as a determinant of normative commitment (Wiener, 1982).

The preceding two forms of commitment (normative commitment and organizational identification) have for the most part fallen out of the mainstream of the commitment literature and research. In the words of Mathieu and Zajac (1990), "By and large, however, these other forms of organizational commitment have either been subsumed into the attitudinal or calculative definitions, or distinguished from commitment to the organization and treated as correlates." Although normative commitment is occasionally mentioned in the current literature, it seems to be assumed by authors (although they usually make no overt mention of it) that it is either contained within the affective

commitment framework, or it is outside the focus of their research.

Organizational identification has also been contained as a component in a larger framework of organizational commitment: "organizational identification constitutes one of the subdimensions of attitudinal commitment as defined by Mowday, Porter, & Steers (1982)" (Mathieu & Zajac, 1990). Therefore, the remainder of this review will focus mostly on affective and continuance commitment. The combined use of these two types of commitment is sometimes referred to as attitudinal commitment. Unfortunately, at other times and by other authors, the term "attitudinal commitment" has been used to refer to affective commitment alone. To avoid this unfortunate inconsistency, in this review the two types will be referred to separately except as made necessary by citation. My present point is to recognize the distinction made by that Allen and Meyer (1990) between attitudinal commitment (in the global sense, combining affective and continuance) and behavioral commitment. The concept of behavioral commitment is separate from this meaning of attitudinal commitment (Allen and Meyer, 1990).

Let us now turn to the issue of whether it is useful to conceptualize (and measure) two different types of commitment (affective and continuance).

Continuance Commitment: A Separate Construct?

Continuance commitment could be conceptualized in several ways in relation to both affective commitment and to commitment in general. On one hand, it could be regarded as a construct separate from affective commitment. Alternatively, it could be included as a minor subdimension of a broader, unidimensional conceptualization of commitment. Still another possibility is to exclude it from all definitions of commitment and either treat it as a separate construct or discard it altogether.

Unfortunately, the focus of the majority of the research on commitment has centered around different types of affective commitment. There is a long list of articles and studies which are geared towards affective commitment rather than continuance commitment, often without any justification or explanation. Many of these authors begin their discussion by defining commitment. By and large, some form of affective commitment is used; often it is one of the definitions of Porter and his colleagues. Porter's definition is

often cited as the most widely used form of commitment (Cohen & Lowenberg, 1990), but rarely is any justification given beyond merely the common use of this measure. Continuance commitment is frequently not even mentioned, nor is any rationale given for its exclusion.

Perhaps the reason for this continuing deemphasis on continuance commitment is because the affective component has been historically the most widely investigated in the research (Allen & Meyer, 1990) and current authors merely wish to draw or build upon the existing research. However, this explanation still does not justify the original trend away from continuance commitment.

Another possibility is that authors have subsumed continuance commitment into their broader conceptualization of commitment without explicitly stating so, while still using affective labels to define commitment. Or, perhaps, affective commitment commands more attention and thus more research, for the following reasons. The recommendations proposed by Becker's side-bets and other forms of continuance commitment may be fairly straightforward and relatively easy to understand and implement. The recommendations

could be centered, for example, around developing compensation, retirement, and benefits packages which progressively increase the member's side-bets as tenure increases. Researchers in the field of psychology may be less likely to involve themselves in issues related to economics, and more likely to focus their research on affective issues.

Affective commitment, on the other hand, may be harder to understand. Since it draws upon emotional states more than continuance commitment does, it may be more difficult to measure. It may be harder to ascertain just which of its many aspects, antecedents, and consequences are related by cause and effect relationships, and to what degree. The complex interrelationships would therefore make it more difficult to determine which types of interventions would be effective in different situations. Because of this, more research would be needed to sort out a long list of uncertainties.

Thus, the availability of unanswered questions and research on the affective side of commitment may, more than any lack of importance of continuance commitment, account for the literature shift towards the affective. But let us now turn towards some of the specific

arguments for and against the use of continuance commitment as a separate construct.

The dialogue began with a study by Ritzer and Trice (1969) designed to test the side-bets approach. This study involved correlating a number of side-bets indexes with measures of organizational commitment. Finding no relationship between the two, they rejected side-bets as a hypothesis and turned to more affective measures.

A counter-argument critiquing Ritzer and Trice's study was stated by Stebbins (1970). Stebbins argued that the results of the previous study could be at least partly due to how the authors operationalized their definition and measures of commitment. According to Stebbins, it was operationalized by the authors as value commitment. However, side-bets is concerned with continuance commitment. Value commitment theory is less concerned with forced-behavior than continuance commitment. Therefore, it should come as no surprise that the relationships between two different types of measures are not very robust.

A later study attempted to take this into account by using a different measure of commitment. In this study, Alutto, Hrebiniak, & Alonso (1973) gave this as

one of their major reasons for finding results opposite to those of Ritzer and Trice (1969), in support of side-bets theory. As we shall see, this early argument is echoed in similar forms in later articles.

The debate has gone back and forth over the years, with mixed support both for and against side-bets and continuance commitment in general. Some studies gathered support for both Becker's and Ritzer and Trice's points of view, beginning with Shoemaker, Snizek, & Bryant (1977), but until fairly recently there were few overall integrations of the literature. Adequate systematic summarization and meta-analysis of the many studies relevant to this debate are only recently being conducted, according to Cohen and Lowenberg (1990). These researchers called other "attempts" at summarization "limited", and made their own systematic review and meta-analysis of side-bets theory in particular. They used a more recent meta-analysis procedure (that of Hunter, Schmidt, & Jackson, (1982) than the reviews which they were criticizing. These other reviews (Griffin & Bateman, 1986; Morrow, 1983; Mowday et al., 1982; and Reichers, 1985) were supportive of side-bets theory, but Cohen and Lowenberg (1990) gave little credence to them, citing limitations

to the traditional narrative review procedures they used (Cohen & Lowenberg, 1990).

In contrast, the results of the newer meta-analysis procedure, which allowed more empirical integration across studies, indicated very little support for side-bets theory. Again, the conclusion was based largely on the relationships between side-bets indexes and measures of organizational commitment. However, one has to be careful about drawing general conclusions about side-bets based on these results. Keeping in mind that affective commitment has been the focus in most of the literature, we should recognize the possibility that most of the commitment measures used are overloaded with factors reflective of affective commitment and not continuance commitment. If this were the case, then we would expect there to be a lower relationship between these measures and side-bets indexes, without citing this to conclude against the importance of side-bets commitment.

Towards the end of the meta-analysis article, Cohen and Lowenberg (1990) themselves admit to several possibilities consistent with this line of thought. They state three possible conclusions to be drawn from their study, only one of which being that side-bet

theory of commitment should be rejected. Another possible conclusion is stated in agreement with Meyer and Allen (1984), who state that "the instrument used in tests of the side-bet theory may not be measuring commitment as Becker conceptualized it". The other possibility was that the strategy in general, and measures of side-bets indexes in particular (such as age and tenure) was inappropriate. Self-reports of members' perceptions about side-bets would be a much more direct measure of the side-bets involved than variables such as age and tenure (Cohen & Lowenberg, 1990).

Some other more recent studies have contained conceptualizations of commitment which include calculative (or continuance) commitment as part of a two or even three dimensional model. Needless to say, these authors argue for the worth of continuance commitment despite the lacking evidence in the recent meta-analysis.

One of these studies, conducted by Mayer and Schoorman (1992), used a two-dimensional model containing both value commitment and continuance commitment. Their results showed different relationships with turnover and performance depending

on the type of commitment, supporting them as separate entities. They used confirmatory factor analysis to argue that we can predict both participation and production outcomes based on commitment.

Participation, particularly turnover, was found to relate more highly to continuance commitment.

Production (i.e., performance) was shown to be more related with value commitment. Therefore, Mayer and Schoorman (1992) stated that value commitment is tied to individuals helping the organization to attain its goals, where continuance commitment is related merely to the individual retaining membership. An employee having high continuance commitment and low affective commitment was said to be discouraged from innovative or risk-taking actions. These actions, although often conducive to performance and of benefit to the organization, can be associated with risks in retaining membership (Mayer & Schoorman, 1992). In fact, one recent study even reported that continuance commitment is negatively related to performance (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989). These results, and other similar claims linking affective commitment more strongly to performance, could be another reason for the dominance of affective commitment in the

literature. In order to discover the most effective interventions in organizations, one would obviously be interested in studying ways to improve performance and to get individuals working toward organizational goals, rather than just encouraging employees to insure their continued membership.

Another meta-analysis of commitment was conducted recently by Mathieu and Zajac (1990). This study was geared toward antecedents, consequences, and correlates of commitment in general, as opposed to Cohen and Lowenberg (1990; discussed earlier) who focused on side-bets in particular. However, Mathieu and Zajac (1990) also included in their study comparisons of attitudinal (i.e., affective) versus calculative commitment. Because attitudinal and calculative commitment had differing relationships with other variables (the antecedents, consequences, and correlates), they summarized that "it does appear that attitudinal commitment and calculative commitment represent separate constructs" (Mathieu & Zajac, 1990). They also concurred with the consistent theme in this review that deficiencies in calculative commitment scales may be the reason for the higher predictive validities associated with attitudinal commitment.

They stated that even the premier measures of calculative commitment are "saturated with affective commitment and, as such, do not allow [side-bets theory] to be tested appropriately" (Mathieu & Zajac, 1990).

Allen and Meyer (1990) tie themselves into this argument with remarks on the most common measures of cost-induced commitment, which were developed by Ritzer and Trice (1969) and Hrebiniak and Alutto (1972). They concur with Stebbins (1970) and their earlier study (Meyer & Allen, 1984) by stating that these instruments "may measure affective attachment rather than, or in addition to, cost induced-commitment" (Allen & Meyer, 1990).

Allen and Meyer (1990) use a three-dimensional model of commitment, adding normative commitment to the usual two forms. Again, due to differential correlations with antecedents, their results argue for the separateness of affective and continuance components. Even normative commitment is seen in this study to be a distinguishable construct, although it is related to affective commitment and not as separable as the other two components.

Still, affective and continuance commitment are related to some degree. Obviously, due to the fact that they are both components of a larger construct, there is some overlap and measurement of one might include some measurement of the other. However, as noted by Mathieu and Zajac (1990), the interplay of the two over time could complicate matters beyond simple overlap. They give the example that "one may be drawn initially to an organization because of exchange relationships (i.e., calculative OC), yet develop attitudes consistent with maintaining membership (i.e., attitudinal OC). This suggests that the two processes may become more closely linked over time" (p. 172).

With the overemphasis of the literature on affective commitment and the shortage of adequate measures and empirical data on continuance commitment, it is difficult to make overall conclusions about the separateness of the two constructs. Even the recent meta-analyses still have opposing and mixed results. Until we can adequately measure continuance commitment as it was conceptualized, we will be uncertain of any final conclusions. Cohen and Lowenberg noted that if the problem is in fact inadequate instruments or strategies for assessing side-bets commitment, then "we

would need a new body of empirical research before we could reach any conclusions regarding the side-bet theory" (Cohen & Lowenberg, 1990). However, despite this ambiguity, research into the consequences and antecedents of commitment has historically utilized measures of affective commitment and continuance commitment.

Possible Consequences of Commitment

Let us now turn to the potential ramifications of organizational commitment. From the organizational point of view, the main areas of interest are measures of organizational participation (turnover and attendance, for example), and various measures of job performance.

Turnover and attendance. The turnover literature began shifting its emphasis towards commitment, and away from job satisfaction, with the growth of evidence that commitment may be a better predictor. According to Porter, Crampon, and Smith (1976), "commitment may represent a set of feelings more closely connected [than job satisfaction] to the individual's desire to stay attached to a particular work situation". The same authors argued that organizational commitment should be a better predictor of turnover because it

emphasizes attachment to a particular organization. On the other hand, job satisfaction may reflect attachment to a particular type of job or job conditions, which might be the same even if the employee transferred to another organization. We could reasonably speculate that this would be even more likely if the member relied on a specialized set of skills or training for employment. The words of the authors appear to support this point: "when an employee terminates, he severs his ties with an organization; however, he may not necessarily also be relinquishing a set of job duties, since he may assume the same type of job in a new organization" (Porter, Crampon, & Smith, 1976).

In an earlier article, Porter had speculated with a different set of colleagues that commitment might be a more global and stable measure tying the employee to the organization, with job satisfaction as a subdimension of commitment (Porter, Steers, Mowday, & Boulian, 1974). However, the complicated interconnections of commitment and satisfaction, as well as many other related, equally troublesome, and difficult to measure affective constructs have still not become well understood to date. These early speculations, however logical, by Porter and others may

have stimulated research, but without empirical justification they must be treated as mere hypotheses.

The Porter, Crampon, & Smith 1976 article was a longitudinal study of organizational commitment and turnover with a group of managerial trainees. At that time, there was little or no longitudinal data available. The study assessed commitment of members from entry into the program until either termination or completion of the study at 15 months. The results showed a significant decline in commitment prior to termination, with this effect becoming apparent earlier for those who terminated earlier. However, merely because the decline in commitment came before termination does not necessarily imply causality. The authors were perceptive and cautious enough to point out the possible alternative of the decision to leave coming before the decline in commitment (Porter, Crampon, & Smith, 1976). To add another possibility, perhaps an employee giving even slight consideration to termination would experience a slight decrease in commitment, which could trigger stronger considerations of termination, triggering even lower commitment, in a sort of downward spiral. If this were the case, it would be hard to assess which came first. Turnover (or

turnover intentions) in this case could be considered both as a consequence and an antecedent of organizational commitment.

Many other studies support a relationship between commitment and turnover. Schechter (1985) created scales to measure continuance commitment and value commitment separately. He found continuance commitment to be significantly correlated with intentions to quit, whereas value commitment was correlated significantly with other measures. Incidentally, one of those other measures was satisfaction with the organization (as opposed to job satisfaction). Using this measure in other studies could help resolve the difficulty stated earlier in relation to Porter, Crampon and Smith (1976). Satisfaction with the organization should measure more directly a tie between the employee and the particular organization, rather than just a tie between the employee and a particular type of job prevalent in many organizations.

Another study by Mayer and Schoorman (1992) incorporated causality into the theoretical structure. The attempt was to establish or at least imply that a two-dimensional model of commitment (with value commitment and continuance commitment as the

subdimensions) could predict participation and production outcomes. One of the hypotheses was that continuance commitment would lead to a "decision to participate", which would lead to lower turnover, intentions to quit, absenteeism, higher intent to stay, and several other participation variables.

Correlations between the measure of continuance commitment and the participation variables were significant for all but absenteeism. Interestingly, the "intentions to quit" variable was correlated just as highly with value commitment as continuance commitment. However, when it came to actual turnover, continuance commitment was more highly correlated.

To critique the preceding study, the correlational data seem fairly sound. However, the relationship between commitment and participation gives no credence to the view that a "decision to participate" occurred in between, which is pure speculation. Also, the entire study is based on correlational data, so the attempt by the authors to incorporate causality, or even to establish that one event occurred before the other, is unwarranted.

Mathieu and Zajac's (1990) meta-analysis confirms that commitment is related to turnover. The overall

results reported small but significant negative correlations between organizational commitment and turnover, lateness, and a small positive significant correlation with attendance. Again, there appeared to be a lesser effect with attendance than with the other measures. The authors noted that the meta-analysis could not directly test moderators to the attendance-commitment relationship, such as ability to attend (p. 184).

Mathieu and Zajac (1990) also observed that, with respect to turnover in particular and organizational commitment in general, the relatively low correlations are probably indicative of relationships mediated by many other factors. In particular, "Organizational commitment has demonstrated relatively high correlations with behavioral intentions, although its relationship with actual withdrawal behaviors has been, at best, only modest. This suggests that the influence of OC on behaviors is mediated by behavioral intentions" (Mathieu & Zajac, 1990).

Fortunately, there are a multitude of studies which report significant relationships between organizational commitment and turnover intentions (e.g., Shore & Martin, 1989). These authors conducted

a study of "job satisfaction and organizational commitment in relation to work performance and turnover intentions" which supported this point. The literature review gave a good summary of many studies which concurred. Commitment was found to relate with turnover intentions more than job satisfaction for one of the two sample groups (the other sample group showed the same trend, but it was not significant). They also made a point similar to that of Mathieu and Zajac (1990), about mediating factors: "Turnover is much more difficult to predict than intentions, since there are many external factors that affect turnover behavior" (Shore & Martin, 1989).

Performance. The main point stated in the discussion of the Shore and Martin (1990) study was that global, relatively long term attitudes such as organizational commitment are tied to organizationally related outcomes, such as turnover intentions. On the other hand, specific, relatively short term attitudes such as satisfaction with particular aspects of the job are tied to task related outcomes, such as performance (Shore & Martin, 1989).

A number of possible shortcomings to these studies should be pointed out. First of all, the measure of

performance used in this study was supervisory ratings. What was interpreted by the authors to be a relationship between satisfaction with the job and performance (i.e., supervisory ratings) could actually be nothing more than the existence of positive supervisor-employee relations. Good relations could both increase the employees' job satisfaction while at the same time biasing the supervisor's subjective ratings of employees, without having any actual effect on performance. Along with the abundance of literature failing to relate job satisfaction with performance, this could be a mistake which entirely confounds the conclusion. Additionally, there is some evidence that job satisfaction is not a short term phenomenon, but rather is based on predisposition (Pulakos & Schmitt, 1983). This would not fit within the author's framework of short-term job satisfactions affecting task performance. There is also no real evidence cited in the study that organizational commitment is a longer-term phenomenon than satisfaction. These possibilities degrade the model to the point where there is no reason to believe job satisfaction is more highly related than commitment to performance.

Aside from the shortcomings of the model, the direct correlational evidence between commitment and the performance measure (supervisory ratings) was low and nonsignificant. This confirmed both the author's expectations and the entirety of the studies in the literature review, which all concluded that organizational commitment was not clearly related to job performance (Shore & Martin, 1989).

Mayer and Schoorman (1992) have conducted one of the few studies claiming evidence for a link between commitment and performance. Using the separate scales for continuance and value commitment developed by Schechter (1985) mentioned earlier, they found a low but significant correlation between value commitment and both performance and organizational-specific citizenship behaviors, supporting one of their hypotheses. However, once again the performance measure was a subjective supervisory rating. Additionally, the supervisor ratings were obtained sometimes months after the commitment surveys, and there is the possibility of interrater bias due to receiving ratings from different supervisors. Therefore, the results of this study should be treated with caution.

Another study was conducted to assess the possible effects of job satisfaction and commitment on organizational citizenship behaviors (OCBs) (Williams & Anderson, 1991). The OCBs could be considered to be a performance measure, although they usually are assessed by a subjective supervisor rating. Williams and Anderson cited normative definitions of commitment developed by Scholl (1981) and Weiner (1982) that contained "characteristics that could also be used to describe OCBs." Because of this, the authors felt that there should be a strong link between commitment and OCBs. Their findings did not support such a relationship, but the authors kept the possibility open, noting the lack of research on OCBs: "organizational commitment deserves further consideration, even in view of the present findings, because there is strong theoretical support for its impact on OCB performance" (Williams & Anderson, 1991).

Mathieu and Zajac's (1990) meta-analysis summarizes the research on commitment and performance when it concludes that there is a weak relationship between the two. Even the subgroup analysis (of the two main types of commitment) failed to alter this conclusion.

The major implications of commitment for organizations, then, are a significant relationship with attendance and turnover intentions, and some relationship (although weak or indirect) with performance. This being the case, it is to the organization's advantage to understand what will foster higher levels of commitment among its employees.

Possible Antecedents of Commitment in Military Settings

The antecedents of commitment in general are not clear. Relationships between commitment and several other factors have been shown, but determining causal relationships is troublesome. Undoubtably, Becker and his supporters would argue that the antecedent of continuance commitment is escalation of side-bets. The antecedents of the more pervasive affective commitment, and commitment in general, are conceptually less straightforward and empirically nearly as ambiguous as support for continuance commitment.

The research on antecedents of commitment specifically in the military profession is even more restricted. We have demonstrated earlier that a relationship is likely to exist between commitment and job satisfaction. A study was conducted by Mathieu (1991) on ROTC cadets which examined the issues of both

commitment and satisfaction. He concluded that there is a reciprocal relationship between the two, and that the effect of satisfaction on commitment appeared to be stronger, but that the nature of the relationship is still unclear.

Pierce and Geyer (1990) made an argument regarding a possible antecedent to commitment which seemed to reflect strong relevance to continuance commitment. In making the point that personal "investment" may result in commitment and intentions to stay or leave, they defined investment as "nonportable material or psychological resources of the individual, extrinsically or intrinsically connected to a particular association or job." This seems, at least on the face, to contain a "side-bets" component, which the authors argue as a partial antecedent to commitment in general.

A study involving 666 Naval trainees was conducted by Tannenbaum, Mathieu, Salas, and Cannon-Bowers (1991), which examined the influence of "training fulfillment" on commitment and other factors (self-efficacy and motivation). It was hypothesized that training motivation would be related to organizational commitment, which was supported by the results. The

results also indicated that training fulfillment (the degree to which training meets the expectations and/or desires of the individual) bears a significant relationship with commitment. The authors presented the possible explanation that an individual's early experiences with an organization (especially a military one) are often tied to training, and that training may convince the individual of the organization's willingness to invest in him or her. This could be consistent with training fulfillment as an antecedent to organizational commitment.

Summary

It is unclear exactly how many types or subdimensions of organizational commitment may exist. There is substantial evidence to indicate the usefulness of affective commitment as a measure. The support for continuance commitment is lacking, but this is at least potentially due to lack of research tied specifically to continuance commitment.

It is apparent that organizational commitment is an important concept which has implications for organizations. Admittedly, a strong direct link between commitment and performance has not been shown. However, considering the high costs to the organization

associated with turnover and absenteeism, the relationship between commitment and organizational participation clearly has important ramifications for organizations.

To further assess the implications of commitment in the Air Force ROTC setting, the authors have developed the following hypotheses:

Hypothesis One. "Affective" commitment will bear significant positive relationships with motivational sources, job satisfaction, tuition status, and class year (i.e., cadets may become more attached to the program with time).

Hypothesis Two. "Continuance" commitment will bear significant positive relationships with comparatively fewer variables: Tuition status, class year, and two sources of motivation - "career" and "economic" motivation but not social or idealistic motivation.

Hypothesis Three. Job satisfaction will be positively related to levels of motivational sources, and class year (i.e., cadets may become more satisfied as they progress towards officership and away from freshman status).

Hypothesis Four. Performance measures will be positively related with affective commitment and levels of motivations.

Hypothesis Five. Organizational Citizenship Behaviors (OCBs) will be positively related with affective commitment, motivational levels, and job satisfaction.

Method

Subjects

Subjects were gathered from the Air Force Reserve Officer Training Corps (AFROTC) detachments of two large midwestern universities. There were 81 total subjects; 56 from University #1 and 25 from University #2. At the time of measurement (at the end of the fall semester), the sample consisted of 28 freshmen, 20 sophomores, 15 juniors, and 20 seniors. By this time, some of the entering freshmen had already been selected out (mostly self-selection), which is typical. This helped to make the four classes more equal in size, but it may have restricted the range of measurement by removing those who were presumably on the lower end of the range on motivation, performance, commitment, and so on. However, it was necessary to allow some time after entry in order for the organization to gather

performance data on the subjects. If anything, the possible restriction of range would make our results a more conservative estimate.

Of the 81 subjects, only six were on full scholarship status at the time of measurement, making it difficult to make comparisons with the 50 subjects on non-scholarship status and the 19 subjects on partial scholarship status (six subjects had missing data for scholarship status). It has also been discovered by the authors (since the gathering of data) that some subjects may have had changes to their scholarship status through the course of the program. For example, a few subjects are not on scholarship status currently, but have had tuitions paid for in past semesters. The financial aid in the past may have had relationships with the subjects' commitment, satisfaction (or other variables) without showing up in our data. Again, this would tend to make it more difficult for us to conclude that a positive scholarship status is beneficial to factors such as commitment or job satisfaction.

Measures

The actual instruments used are recorded in Appendix A and Appendix B. The instruction sheet was

given verbally to most of the subjects; however, in order to reach more subjects, some cadets were distributed the survey with the same instructions in written form. On the motivation and commitment survey, items 15, 18, and 21 are measures of job satisfaction taken from the Michigan Organizational Assessment Questionnaire (MOAQ) and adapted for Air Force ROTC. The rest of the items 1 through 21 are measures of organizational commitment (some are affective commitment, some are continuance) taken from Meyer and Allen (1984) and adapted for Air Force ROTC. Items 22 through 26 (concerning sources of motivation) were designed by the authors based on interviews with cadets and staff at the ROTC detachments. The narrative questions concerning motivations (preceding item 22) were designed to determine if there were any additional major sources of motivation which did not surface in the interviews. Only three subjects (out of 81) mentioned motivational sources outside of those which we developed. These three mentioned the two additional sources of "curiosity" and the "challenge" associated with the program. Item 27 was developed to measure the cadets' current tuition status.

Of the items on this survey, two items (items 9 and 20) were removed from the analysis. The rationale for this was that item 9 may measure a relative, comparative factor between continuance and affective commitment rather than any pure measure of either type of commitment or commitment in general. Item 20 probably measures levels of change in commitment rather than commitment itself. The remaining items were combined into global scales for commitment (both affective and continuance) and job satisfaction as appropriate.

The second survey, administered to cadets' supervisors, was intended to measure the cadets' "organizational citizenship behaviors" (OCBs). The items were taken from instruments used by Bateman and Organ (1983) and adapted for Air Force ROTC. The fifteen items were combined into one global scale. Of course, a different rater had to be used at the two different Air Force ROTC locations. The Cadet Commander (a Cadet) was used at University 2. However, at the time of administration the Cadet Commander at University 1 was not available, so the Commandant of Cadets (an Officer) was used at that location. For purposes of analysis (in most cases) the global scale

was corrected for interrater bias with the assumption that the two University locations were roughly similar in DCBs (see Results section).

Additional data was gathered from organizational records. These included demographic data (class year and University attended), and performance data. The performance measures were term and cumulative Air Force grades (from ROTC classes; these grades are also subsumed into overall University grades), term and cumulative University grades, physical fitness test scores, commander's ratings, AFOQT scores, and a composite performance score. The AFOQT, also known as the Air Force Officer Qualifications Test, could be described as an Air Force version of the GRE, including five subscales: verbal, quantitative, analytic, pilot, and navigator. The composite performance score (an organizationally designed overall measure) consists of 50% commander's ratings, 15% cumulative University grades, 12.5% AFOQT quantitative scores, 12.5% AFOQT verbal scores, and 10% PFT scores. Due to large amounts of missing data on several of the performance scores, some scores were not used in several of the analyses (see Results section).

Results

Preliminary Analyses

Preliminary analyses were used to compare the two Air Force ROTC locations and the four class years, in order to ascertain the nature of the sample. Significant independent t-tests on all variables by University are summarized in Table 1. All other variables were nonsignificant by University and are not reported in this table.

Insert Table 1 about here

A correlational analysis was used to examine relationships between class year and the other variables. Significant results are reported in Table 2. All other variables were nonsignificant. The significance of the performance scores (both GPAs and the fitness test) are at least partially attributable to the low scorers being selected (or self-selected) out of the program. This, and different class sizes (the upper classes being smaller) may confound analyses by class year.

Insert Table 2 about here

The negative relationship between career interests and class year (shown in Table 2) was unexpected and may have important implications. Therefore, other analyses were conducted on career interests as notes for future research. Most notably (referring to Table 3), career interests bore a positive relationship with Air Force cumulative grades, but a negative relationship with university term grades. This was the case even though the Air Force grades are subsumed into university grades (see discussion).

Insert Table 3 about here

A preliminary correlational analysis was conducted to examine relationships between cadets' current motivational sources and cadets' reported, recalled motivational sources at the time of program entry (see Table 4).

Insert Table 4 about here

Most of the measures are intercorrelated, with the highest and most significant correlations existing between measures of the same motivational source (eg. current idealistic motivation with entry idealistic motivation). On the face, this seems hopeful, since we assess applicants before entry and these results might indicate some stability between entry and later sources and levels of motivation. However, these results should be treated with caution. Many of the subjects entered exactly the same or almost exactly the same values for both entry and current motivation. It is possible that these reports are accurate; however, we must consider other possibilities as well. Perhaps social desirability is a factor, with cadets wishing to appear (to others or themselves) steadfast in their motivations across time. Subjects may also have difficulty recalling their motivations of several years ago, or they may reconstruct reality (consciously or unconsciously) in their recollection based on their current perspective. Simple fatigue or laziness could also be a factor, i.e., the subjects just copied their scores from reported current motivations onto the entry motivations in order to save time or effort. Because of the difficulties inherent in recollection, in the

"hypothesis testing" results section, only the current reported levels of motivation were used. An assumption that entry motivations have some effect on subsequent motivations might be of some value for decision making in the hiring process, even if the data is questionable. A longitudinal study (to test entry motivations at entry, then current motivations later) would be a helpful addition to this research.

Hypothesis Testing Results

Affective Variables. For all three of the affective dependent variables (affective commitment, continuance commitment, and job satisfaction), three regression analyses were run using backward regression procedures with standardized beta weights. First, the four sources of motivation were regressed onto the affective variables (Model 1A). Next, a larger set of variables was regressed, which included the motivational sources plus four other variables (class year, tuition status, University attended, and GPAs) (Model 1B). Finally, another analysis was run with all of the above variables plus job satisfaction to see the additional variable accounted for any additional variance (Model 1C). The significant regressors are

summarized in Tables 5, 6, and 7 (non-significant regressors from the models are not reported).

Insert Table 5 about here

We can see that a relationship between affective commitment and idealistic motivation is well supported (from Table 5). It is interesting to note that class year was found to be significant in model 1B, but when job satisfaction is added to the model the apparent effect of class year disappears, and is replaced by the effects of tuition status and economic motivation.

It is not surprising that continuance commitment is related to specific career motivations involving the Air Force (see Table 6). It is more surprising that continuance commitment is actually negatively related with social motivations (see discussion).

Insert Table 6 about here

The significance of the University attended in models 1B and 1C (on Table 6) is consistent with the significant T-test (reported earlier) of continuance commitment by school.

In the analysis of job satisfaction as a dependent variable (in Table 7), model 1C was not included because model 1C was the addition of job satisfaction as an independent variable. These results further support the notion of a relationship between career motivations and affective variables.

Insert Table 7 about here

Performance Variables. Five dependent performance variables (cumulative University GPA, term University GPA, cumulative Air Force GPA, term Air Force GPA, and the physical fitness test) were regressed upon using backward regression with standardized beta weights. For all five of these dependent variables, there were four independent variables: affective commitment, continuance commitment, job satisfaction, and the four motivational sources (Model 2). The significant regressors are summarized in Table 8. Nonsignificant regressors are not reported.

Insert Table 8 about here

It may seem unusual that nothing regresses significantly onto cumulative University grades. However, the other variables measure various current aspects of the subjects. Grades may be related to the subjects' current states and may not be as evident in a cumulative measure (which may be contaminated by relationships with states that have changed over the years). This idea is supported by the significant relationships with term grades.

The last three performance measures were afflicted with missing data (see Table 8 for number of observations in each analysis). Additional data, however, might improve the significance of the existing relationships or even contribute other significant regressors.

Organizational Citizenship Behaviors (OCBs).

Three different sets of independent variables were regressed onto the OCBs. The first set includes only the four motivational sources (Model 3A). The second set includes these four variables, but also adds cumulative University GPAs, tuition status, and class year (Model 3B). The third set includes all of the above plus affective commitment and continuance commitment (Model 3C). Significant regressors are

summarized in Table 9 (nonsignificant regressors are not reported).

Insert Table 9 about here

Idealistic motivations are clearly supported as contributing to OCBs, which are often not reflected in performance reports but are nonetheless important to organizations (Organ 1988). Idealistic motivation disappears from Model 3C; this is most likely due to its common variance with affective commitment (see Table 5).

Discussion

The significance of organizational citizenship behaviors (OCBs) by university (in Table 1) may be attributable to the fact that a different rater of OCBs was used at each location. The differences on the fitness test and continuance commitment may be due to some small real effect by school, but with the nonsignificance of all the other variables, we cannot conclude that there is any pervasive effect of the ROTC location on the other variables.

Affective commitment was shown to be related to class year in Table 2. Although we cannot ascertain

the nature of causal relationships, we could speculate a couple of alternatives. One is that cadets might form a more cohesive class group as they progress through the program and identify more highly with their peers, the staff, and the Air Force. This alternative could also be related to "escalation of [affective] commitment". Another contributing possibility is that those who do not identify well with the Air Force either self-select out or are selected out of the program.

The negative correlation of "specific career interests" motivation by class year could be hypothesized (in a future study) to cadets' realizations (as they proceed through the program) that opportunity and the needs of the Air Force may be more salient than personal preferences for career field choice.

As an interesting aside (for future research) regarding career interests, refer to Table 3. The possible implication of these results is that a specific career interest in the Air Force (e.g., flying) might encourage a cadet to do well overall in Air Force classes (as selected by cumulative Air Force GPA). However, that same interest might distract

cadets from doing as well in the more general University courses. (Note: The University grades used in this analysis include both regular University classes and the Air Force classes. The removal of Air Force grades from the University grades in a future study could make these differences more evident).

Referring to Table 5, the replacement of class year (in model 1B) with job satisfaction, tuition status, and economic motivation (in model 1C) is worth noting. From Table 7 we can see that there is a significant relationship between job satisfaction and class year. We can also see in Table 6 that the relationship between job satisfaction and affective commitment appears to be stronger than the relationship between class year and affective commitment. Perhaps the former relationship constitutes a more global factor. This may account for the appearance of the tuition and economic motivation factors in model 1C (which were also independent variables in model 1B, but were nonsignificant). The introduction of the more global job satisfaction measure in model 1C may have accounted for enough variance extraneous to tuition and economic motivation to allow these two factors to reach a significant level.

Regarding Table 6, the relationship between continuance commitment and career motivation was expected by the authors. However, the negative relationship between continuance commitment and social motivation was not expected. Perhaps those who invest themselves in Air Force ROTC with a high degree of continuance commitment invest themselves in the specific career field they are interested in rather than investing in social factors (such as involvement with peers, staff, reliance on family encouragement, and prestige). If this were the case, it could be related to the realization by cadets that their career choice will affect their future in many settings, but their social environment will probably change.

The significant relationship of job satisfaction with career motivation (in Table 7) is consistent with the idea of a relationship between career motivations and affective variables in general. The relationship of job satisfaction with class year supports the notion of an increase in cadets' job satisfaction as they progress towards officer status.

The performance data analyses (in Table 8) produced a number of interesting results. It is useful to know that affective commitment to the Air Force is

related to Air Force grades. The fact that economic motivations are also related supports the idea that it is possible to be in the Air Force both for the compensation and because of some affective attachment.

Most interesting is the fact that the physical fitness test had the highest number of significant regressors. The authors expected to find few relationships with physical fitness. Athletic ability and/or athletic fitness (which can vary widely by individual) on the face would seem to be an odd variable in comparison to all of the other variables, which are cognitively or affectively based. However, it has since been realized by the authors that although the Air Force ROTC program is heavily loaded with required academic and cognitive training, mandatory physical training is less commonplace. That is, all cadets are required to attend and pass their classes, which gives virtually all cadets some degree of practice and performance on the academic and cognitive measures. This should therefore reduce the variance on these types of measures, making it harder to identify significant relationships. The physical training, on the other hand, is seldom required but definitely encouraged. One possible explanation for this is that

cadets low in commitment or motivation, then, do not attend the optional physical training sessions. Cadets higher in commitment and motivation may attend these functions, or even "keep in shape" on their own. In a sense, attending non-mandatory physical training could even be considered a separate "organizational citizenship behavior" (OCB) measure, since many OCB scales contain items which reflect participation in events which are not required, but beneficial to, the organization (Organ 1988). However, the analysis of our data does not support a significant relationship between fitness test scores and the OCB scores.

The OCB analyses (in Table 9) did produce other results of note, however. The GPA component, although small, is at least consistent with the notion of OCBs and participation in non-required activities. Participation and certain minimum grades in class are required, but working hard to excell in class (instead of just achieving a passing grade) is not. If the "OCB-type" or "good soldier" type tries to excell where others try only to meet minimum requirements, we would expect some relationship between grades and OCB measures. However, it would not be surprising for the observed correlation to be low because of range

restriction (e.g., due to minimum grades and minimum abilities being required for acceptance into the ROTC program). Also, there are likely to be other moderators, such as natural cognitive ability (OCBs are intended to measure effort spent towards organizational goals, not ability).

Discussion of Hypotheses

Hypothesis One. Substantial support was gathered for hypothesis one. Although only one of the motivational sources was significantly related to affective commitment in all three models (models 1A, 1B, and 1C in Table 5), all of the other hypothesized relationships entered into at least one of the models. Class year did bear a relationship with affective commitment, but this may be part of a more global relationship between job satisfaction and affective commitment. Tuition status related significantly with affective commitment once the job satisfaction variable was considered.

Hypothesis Two. Support for hypothesis two is very limited (see Table 6). Tuition status and class year did not bear significant relationships with continuance commitment. Career motivation was significant, as hypothesized, in one of the three

models (Model 1A), and idealistic motivation was not significant in any of the models (as hypothesized). However, contrary to the hypothesis, economic motivation was not significantly related to continuance commitment. Also, social motivation was negatively related to continuance commitment in model 1A, contrary to the hypothesis.

Hypothesis Three. Solid support was indicated for hypothesis three. Class year was found to bear a significant relationship with job satisfaction in our sample (see Table 7). One of the motivational sources, career motivation, also bore a significant relationship with job satisfaction.

Hypothesis Four. Mixed but strong evidence for hypotheses four was found (see Table 8/Model 2). Affective commitment was related to three of the five performance variables. All of the four motivational sources except idealistic motivation were related to at least one performance measure. However, one of the motivational sources (career motivation) was negatively related to two of the performance variables (fitness and term university GPA), contrary to this hypothesis. Only one of the performance measures (cumulative university GPA) bore no significant relationships.

This may have been due to the attempt to compare a cumulative measure spanning the entire program with current measures that may have fluctuated over time (as discussed previously in the results section). The existence of significant relationships with term university GPA supports this notion.

Hypothesis Five. Support for hypothesis five is also mixed. Affective commitment was related with organizational citizenship behaviors (OCBs) in model 3C, the only model in which it was entered (see Table 9). The one related motivational source was idealistic motivation, which disappeared from model 3C when affective commitment was added. Affective commitment and idealistic motivation have been shown to be related (in Table 5), which may explain the disappearance of idealistic motivation in Model 3C (from Table 9). Job satisfaction was not found to relate with OCBs, contrary to our hypothesis.

Implications for Future Research

Useful additional research could be developed based on the results of this study. A longitudinal assessment of cadets' changing levels of commitments and motivations, and the relationships of these changing factors with performance, OCBs, or other

measures would be most useful. An analysis of the interactions of the various factors would also be of benefit. A separate but related focus could examine the nature of the relationship between cadets' career motivations and Air Force versus university GPAs (refer to Table 3). The discovery that there may be some factors (such as career interests) which may be of benefit to performance on one front (Air Force GPA) and yet harmful on another front (university GPA) was a result not expected in this study. Data collection of university GPAs computed without the inclusion of Air Force GPAs would obviously be of benefit.

Other research could also measure factors not included in this study, such as turnover, attendance, and their relation to commitment in the Air Force setting. A lengthy longitudinal study could follow subjects not only through the ROTC program, but also into their Air Force careers. In the case of turnover, most cadets graduate owing a commitment of several years to the Air Force. Either the subjects could be followed well into their careers, or alternatively, turnover intentions could be assessed.

Conclusion

From the hiring and training standpoint of the Air Force, it is useful to know that affective commitment, idealistic motivation, and organizational citizenship behaviors all appear to be interrelated based on this sample. Selection of incoming cadets with high levels of idealistic commitment, coupled with an environment conducive to increasing cadets' levels of affective commitment, could increase the incidence of the organizational citizenship behaviors which are not often assessed but are nonetheless beneficial to the organization (Bateman & Organ, 1983). In addition, affective commitment was shown to relate to performance in this sample. There is also an abundance of research indicating that a relationship exists between commitment and turnover intentions. Taken together, the relationship of affective commitment to performance, organizational citizenship behaviors, and likely turnover intentions (although not measured in this study), gives a strong indication that fostering high levels of affective commitment in Air Force ROTC cadets is of benefit to the Air Force.

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Appendix A

Instructions and Questionnaire

ORAL INSTRUCTIONS FOR MOTIVATION AND COMMITMENT SURVEY:

The following is a short survey which is being used for the thesis research of Lieutenant Gregory T. Shaffer, and AFIT (Air Force Institute of Technology) student attending graduate school at the University of Akron. The project involves a study of AFROTC Cadets and their different sources of motivations for being in the Air Force.

The research is aimed at trying to identify possible types of motivation which may be of benefit to both the Air Force and the future officers in ROTC. For example, some types of motivation might result in higher levels of commitment to the Air Force or higher personal satisfaction with Air Force careers. If we can discover these types, then we can select these kinds of personnel into the Air Force to begin with.

The survey should take just a few minutes, so please take the time to answer candidly and honestly. The results may be published in military journals and made available to AFROTC headquarters and the Air Force Human Resources Lab in order to have a positive impact on who will enter the ROTC program in the future (these are the people who will be working for YOU). Therefore, your honest input is both strongly recommended and greatly appreciated.

THANKS FOR YOUR HELP!

2LT Gregory T. Shaffer, USAF

MOTIVATION AND COMMITMENT SURVEY

USAF SCN 93-94

The following questions will be used in a study of motivation and commitment to the Air Force by ROTC cadets. This survey is for research purposes only. Responses will NOT be used for individual evaluation, and replies will be kept strictly anonymous and confidential. Please answer candidly and honestly.

CLASS YEAR (circle one): Fresh. Soph. Junior Senior
Last four digits of SSN: _____

Please respond to the following statements by using this format:

- 1 = I strongly disagree with this statement
- 2 = I moderately disagree with this statement
- 3 = I slightly disagree with this statement
- 4 = I neither agree nor disagree with this statement
- 5 = I slightly agree with this statement
- 6 = I moderately agree with this statement
- 7 = I strongly agree with this statement

- 1. _____ I am more motivated to remain with the Air Force than when I first joined.
- 2. _____ I feel I have too few options to consider leaving the Air Force.
- 3. _____ AFROTC has a great deal of personal meaning for me.
- 4. _____ I would be very happy to spend the rest of my career with the Air Force.
- 5. _____ It would be very hard for me to leave AFROTC right now, even if I wanted to.
- 6. _____ I do not feel a strong sense of belonging to my AFROTC detachment.
- 7. _____ I am not afraid of what might happen if I quit my Air Force career without having another one lined up.
- 8. _____ I really feel as if this detachment's concerns are my own.

Please respond to the following statements by using this format:

- 1 = I strongly disagree with this statement
- 2 = I moderately disagree with this statement
- 3 = I slightly disagree with this statement
- 4 = I neither agree nor disagree with this statement
- 5 = I slightly agree with this statement
- 6 = I moderately agree with this statement
- 7 = I strongly agree with this statement

9. _____ Right now, staying with AFROTC is a matter of necessity as much as desire.

10. _____ I enjoy discussing the Air Force with people outside it.

Please respond to the following statements by using this format:

- 1 = I strongly disagree with this statement
- 2 = I moderately disagree with this statement
- 3 = I slightly disagree with this statement
- 4 = I neither agree nor disagree with this statement
- 5 = I slightly agree with this statement
- 6 = I moderately agree with this statement
- 7 = I strongly agree with this statement

11. _____ One of the few negative consequences of leaving AFROTC would be the scarcity of available alternatives.

12. _____ I think I could easily become as attached to another career as I am to this one.

13. _____ It wouldn't be too costly for me to leave the Air Force in the near future.

14. _____ I do not feel "part of the family" in this detachment.

15. _____ In general, I like the idea of working in the Air Force.

Please respond to the following statements by using this format:

- 1 = I strongly disagree with this statement
 - 2 = I moderately disagree with this statement
 - 3 = I slightly disagree with this statement
 - 4 = I neither agree nor disagree with this statement
 - 5 = I slightly agree with this statement
 - 6 = I moderately agree with this statement
 - 7 = I strongly agree with this statement
-
- 16. _____ One of the major reasons I remain in AFROTC is that leaving would require considerable personal sacrifice - another career may not match the overall benefits I have.
 - 17. _____ Too much in my life would be disrupted if I decided I wanted to leave the Air Force now.
 - 18. _____ In general, I don't like the idea of my future with the Air Force.
 - 19. _____ I do not feel "emotionally attached" to this detachment.
 - 20. _____ My level of commitment to the Air Force has not significantly increased since I entered ROTC.
 - 21. _____ All in all, I am satisfied with my planned career with the Air Force.

Please state briefly your primary motivation(s) for
ORIGINALLY joining AFROTC:

Please state briefly your primary motivation(s) for
remaining committed to AFROTC at the PRESENT:

Please respond to the following statements by using this format:

- 1 = I strongly disagree with this statement
- 2 = I moderately disagree with this statement
- 3 = I slightly disagree with this statement
- 4 = I neither agree nor disagree with this statement
- 5 = I slightly agree with this statement
- 6 = I moderately agree with this statement
- 7 = I strongly agree with this statement

The following four questions pertain to your motivations for JOINING AFROTC (not necessarily the same as your current motivations):

- 22. _____ Specific career interests played a significant role in my decision to join ROTC (eg. to be a pilot, an engineer, etc)
- 23. _____ Economic factors played a significant role in my decision to join ROTC (scholarship, job security, etc.).
- 24. _____ Social factors played a significant role in my decision to join ROTC (belonging to a group, prestige, family encouragement, etc.)
- 25. _____ Idealistic values played a significant role in my decision to join ROTC (eg. serving God and country).

The following four questions pertain to your motivations for remaining committed to the Air Force at the PRESENT:

- 26. _____ Specific career interests play a significant role in continuing my commitment to the Air Force.
- 27. _____ Economic factors play a significant role in continuing my commitment to the Air Force.
- 28. _____ Social factors play a significant role in continuing my commitment to the Air Force.
- 29. _____ Idealistic values play a significant role in continuing my commitment to the Air Force.

30. With my current scholarship status, the Air Force pays: A) full tuition B) partial tuition C) no tuition

Appendix B

Organizational Citizenship Behavior Survey

(To be completed by a member of the staff)

Please respond to the following statements with this format:

- 1 = I strongly disagree with this statement
- 2 = I moderately disagree with this statement
- 3 = I slightly disagree with this statement
- 4 = I neither agree nor disagree with this statement
- 5 = I slightly agree with this statement
- 6 = I moderately agree with this statement
- 7 = I strongly agree with this statement

Cadet's last four digits of SSN: _____

The cadet that I am currently rating. . .

- 1. _____ Conscientiously follows organizational rules.
- 2. _____ Tries to look busy doing nothing.
- 3. _____ Resists influence from others, including superiors.
- 4. _____ Acts cheerfully.
- 5. _____ Loses touch with things going on around him/her.
- 6. _____ Cooperates well with those around him/her.
- 7. _____ Complains about insignificant things at work.
- 8. _____ Seeks other's help when he/she needs it.
- 9. _____ Makes constructive statements about the detachment.
- 10. _____ Exhibits dependability in carrying out his/her responsibilities.
- 11. _____ Talks about wanting to quit his/her job.

Please respond to the following statements with this format:

- 1 = I strongly disagree with this statement
- 2 = I moderately disagree with this statement
- 3 = I slightly disagree with this statement
- 4 = I neither agree nor disagree with this statement
- 5 = I slightly agree with this statement
- 6 = I moderately agree with this statement
- 7 = I strongly agree with this statement

The cadet that I am currently rating. . .

- 12. _____ Participates or volunteers to do things not formally required by the job.
- 13. _____ Helps other cadets when their work load increases.
- 14. _____ Exhibits punctuality.
- 15. _____ Gives advance notice if unable to attend functions.

Table 1

Independent T-tests of All Variables by University**

<u>Dependent Variable</u>	<u>Means</u>	<u>Prob. T</u>
OCBs	Univ. 1 4.48	.0001
	Univ. 2 3.92	
Continuance Commitment	Univ. 1 3.81	.0001
	Univ. 2 4.23	
Fitness Test	Univ. 1 330	.0001
	Univ. 2 219	

** nonsignificant results not reported

Table 2

Significant Correlations with Class Year**

Variable	Correlation with Class Year (time in)	Significance Level
Term University GPA	.429	.0001
Cum University GPA	.333	.0037
Fitness test	.666	.0001
Affective DC	.224	.0441
Career Interests	-.311	.0056

** all other variables were not
significantly correlated

Table 3

Correlations Between Grades and
Specific Career Interests

Variable	Correlation with Career Interests	Significance Level
Cum Air Force GPA	.532	.0337
Term Air Force GPA	****	****
Cum University GPA	****	****
Term University GPA	-.247	.0379
**** non significant results		

Table 4

Correlations Between Current and Entry Motivations

Current Motivational Source	Entry motivational sources			
	CAREER	ECONOMIC	SOCIAL	IDEALISTIC
CAREER	.490	.246	.237	.352
p value	.0001*	.0301*	.0366*	.0016*
ECONOMIC	.129	.653	.346	-.084
p value	.2596	.0001*	.0019*	.4642
SOCIAL	-.020	.271	.700	.225
p value	.8658	.0164*	.0001*	.0474*
IDEALISTIC	.176	-.125	.292	.770
p value	.1233	.2763	.0096*	.0001*

* significant at $\alpha < .05$

Table 5

Affective Commitment Regression Analyses**

(Backward regression, standardized beta weights)

Significant		Significance	
Regressor	Beta	Level	
MODEL 1A	Idealistic Motivation	.294	.0001
F = .0001			
MODEL 1B	Idealistic Motivation	.305	.0001
	Class Year	.204	.0078
F = .0001			
MODEL 1C	Idealistic Motivation	.189	.0008
	Job Satisfaction	.378	.0001
	Tuition Status	.294	.0192
	Economic Motivation	-.121	.0129
F = .0001			

** variables not reported here were not significant

Table 6

Continuance Commitment Regression Analyses**

(Backward regression, standardized beta weights)

Significant		Significance	
	Regressor	Beta	Level
MODEL 1A	Career Motivation	.112	.0193
	Social Motivation	-.102	.0313
F = .0224			
MODEL 1B	University	.421	.0090
F = .0090			
MODEL 1C	University	.421	.0090
F = .0090			

** variables not reported here were not significant

Table 7

Job Satisfaction Regression Analyses**

(Backward regression, standardized beta weights)

Significant		Significance	
Regressor		Beta	Level
MODEL 1A	Career Motivation	.302	.0001
F = .0001			
MODEL 1B	Career Motivation	.379	.0001
	Class Year	.345	.0011
F = .0001			

MODEL 1C (Not included)

** variables not reported here were not significant

Table 8

MODEL 2: Performance Measures Regression Analyses***

(Backward regression, standardized beta weights)

Dependent Variable	Significant Regressors	Beta	Significance Level
Cum GPA	No significant regressors		
Term GPA	Career Motivation	-16.8	.0007
	Economic Motivation	10.6	.0207
	Job Satisfaction	12.7	.0379
	F = .0040		
AF Cum	Affective Commitment	26.3	.0140
	F = .0140*		
AF Term	Affective Commitment	45.3	.0010
	Economic Motivations	16.6	.0091
	F = .0025*		
Fitness	Affective Commitment	42.0	.0011
	Career Motivations	-35.8	.0001
	Economic Motivations	23.2	.0
	Economic Motivations	23.2	.0011
	Social Motivations	15.3	.0138
	F = .0001**		

* only 16 observations available

** only 39 observations available

*** variables not reported here were not significant

Table 9

Organizational Citizenship BehaviorsRegression Analyses **

(Backward regression, standardized beta weights)

Significant		Significance	
	Regressor	Beta	Level
MODEL 3A	Idealistic Motivation	.083	.0241
	F = .0241		
MODEL 3B	Idealistic Motivation	.104	.0024
	Cum University GPA	.004	.0005
	F = .0001		
MODEL 3C	Cum University GPA	.003	.0013
	Affective Commitment	.189	.0009
	F = .0001		

** variables not reported here were not significant